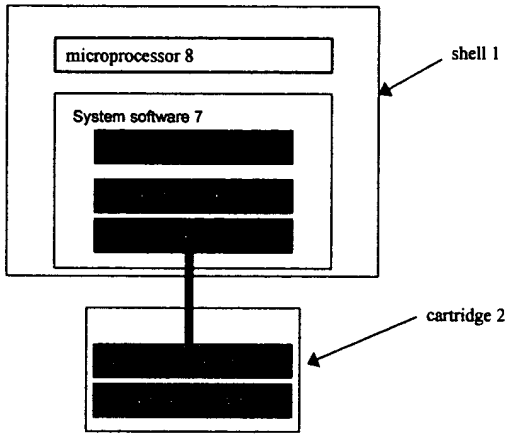

microprocessor 8
shell 1
System software 7
cartridge 2

FIG 1

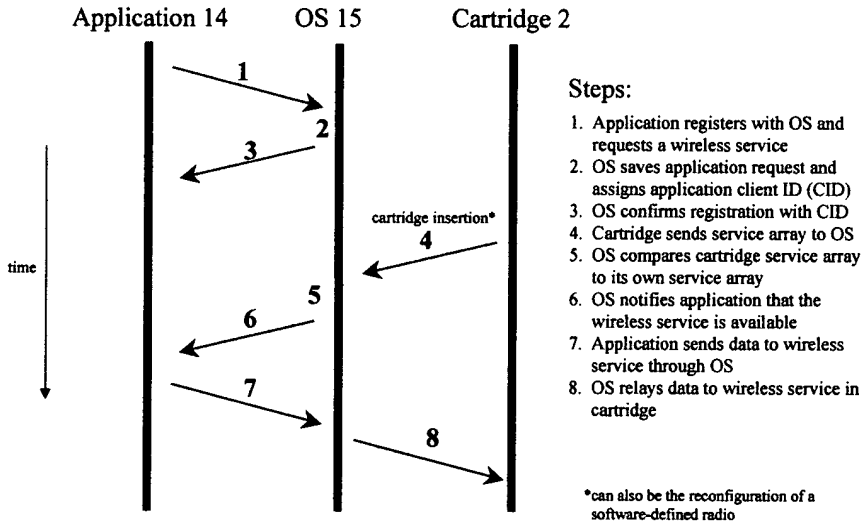

Application 14
OS 15
Cartridge 2
1
2
3
cartridge insertion*
4
time
5
6
7
8
Steps:
1. Application registers with OS and requests a wireless service
2. OS saves application request and assigns application client ID (CID)
3. OS confirms registration with CID
4. Cartridge sends service array to OS
5. OS compares cartridge service array to its own service array
6. OS notifies application that the wireless service is available
7. Application sends data to wireless service through OS
8. OS relays data to wireless service in cartridge
*can also be the reconfiguration of a software-defined radio

FIG 2

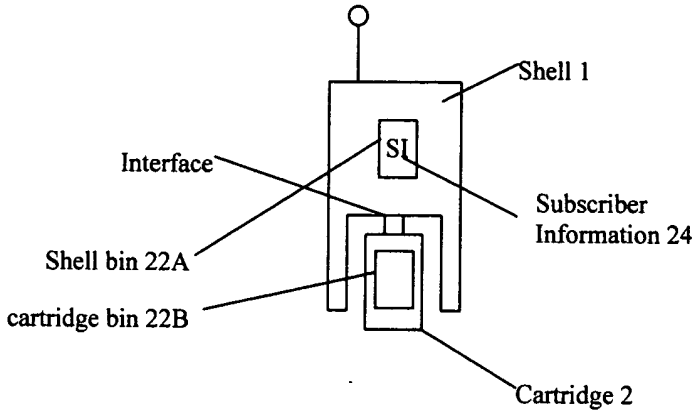



FIG. 3

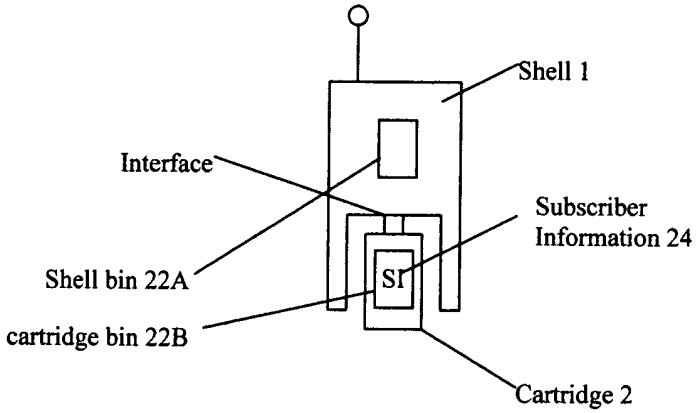



FIG. 4

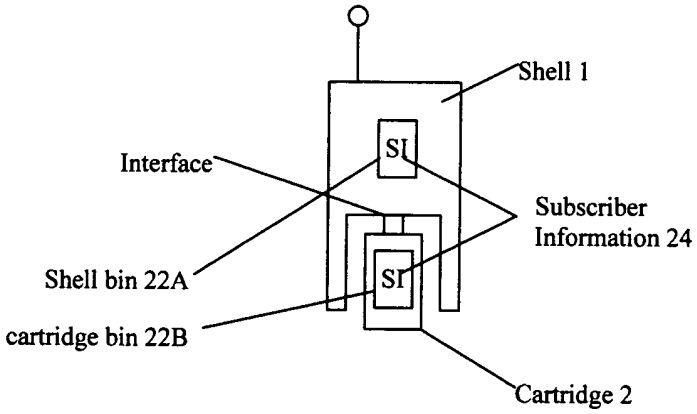



FIG. 5

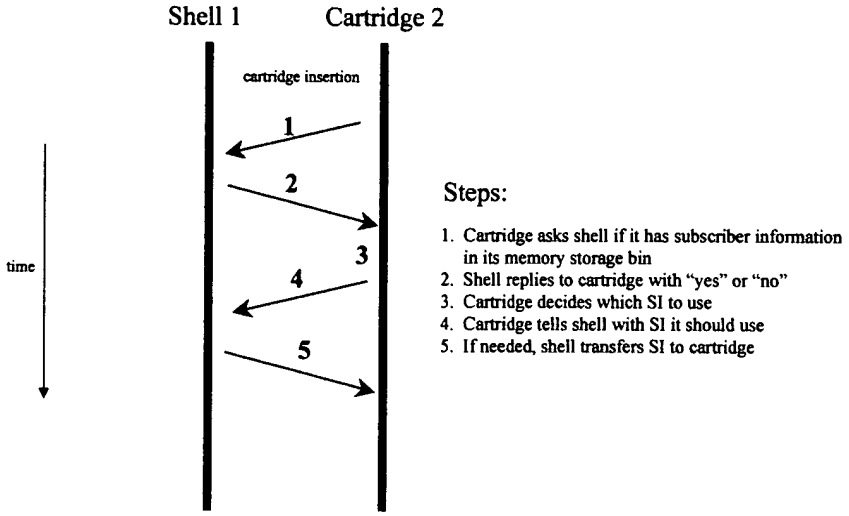

Shell 1
Cartridge 2
cartridge insertion
1
2
3
4
5
time
Steps:
1. Cartridge asks shell if it has subscriber information in its memory storage bin
2. Shell replies to cartridge with "yes" or "no"
3. Cartridge decides which SI to use
4. Cartridge tells shell with SI it should use
5. If needed, shell transfers SI to cartridge

FIG 6

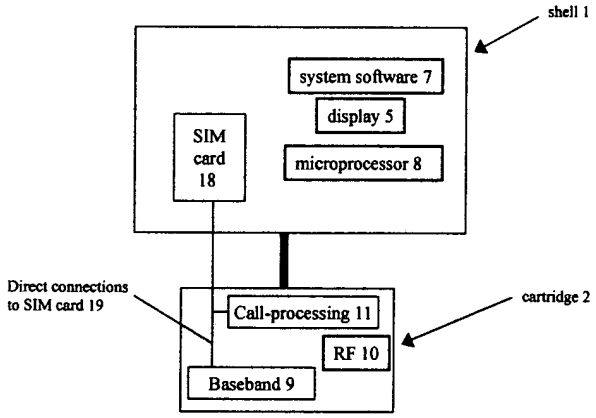

shell 1
system software 7
display 5
SIM card 18
microprocessor 8
Direct connections to SIM card 19
Call-processing 11
RF 10
Baseband 9
cartridge 2

FIG 7

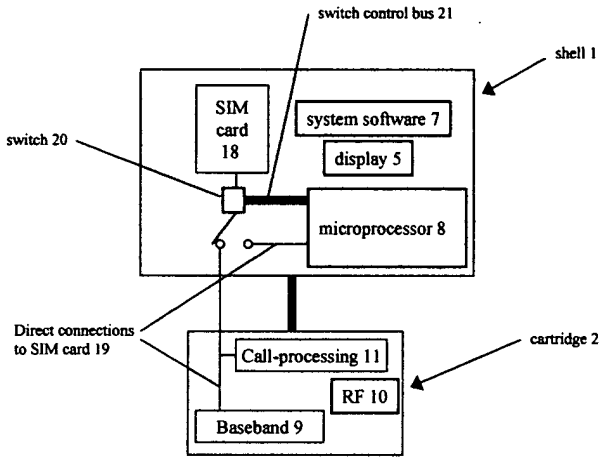

switch control bus 21
shell 1
SIM card 18
system software 7
display 5
switch 20
microprocessor 8
Direct connections to SIM card 19
cartridge 2
Call-processing 11
RF 10
Baseband 9

FIG 8

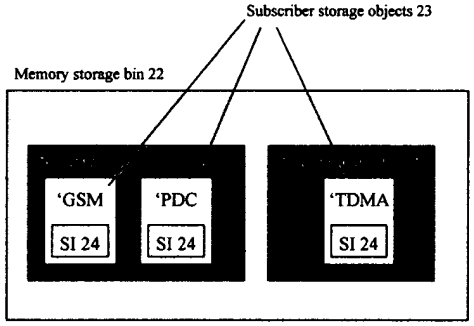
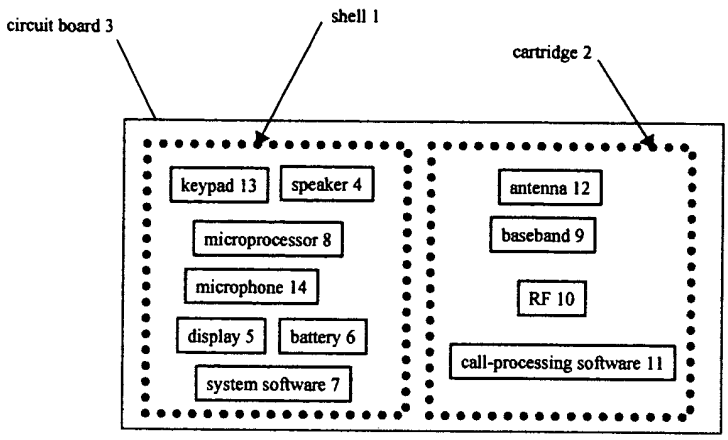
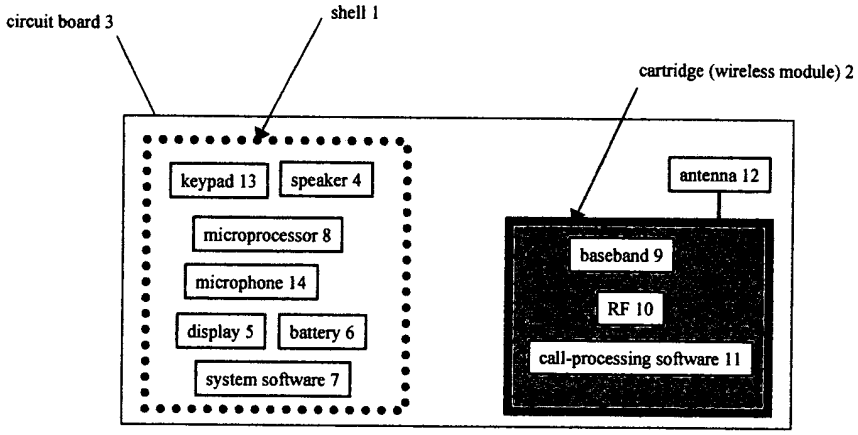

Subscriber storage objects 23
Memory storage bin 22
'GSM
SI 24
'PDC
SI 24
'TDMA
SI 24

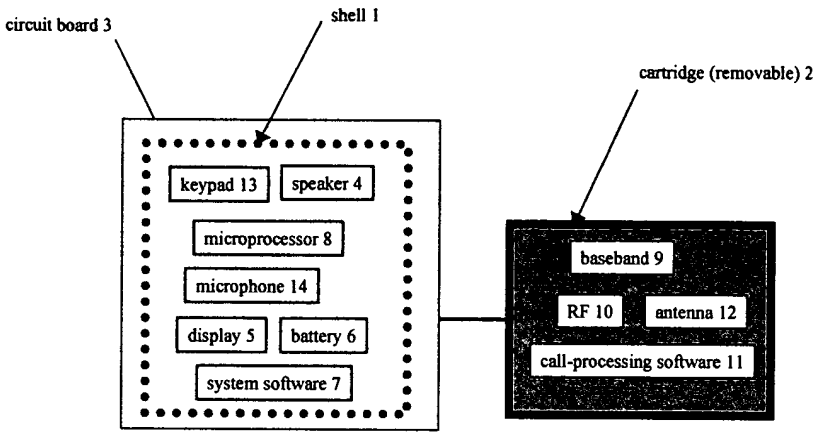
FIG 9




Prior Art-
first device architecture




Prior Art-
second device architecture




Prior Art-
third device architecture